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| Math CAMPPP 2011: Proportional Reasoning – Breakout #3  Responding To Students Over Time | | Breakout 9-12 |
| MO:20 min  A:80 min  (30+15+20+15)  C:20 min  (15+5)  120 min | Math Learning Goals   * **Responding**: Consider the various criteria (lenses) through which we assess student work (Achievement Chart Categories, Mathematical Processes, Generalization/Justification) * **Responding**: Understand the importance of shared teacher/ student understanding of assessment criteria. * **Responding**: Reflect on personal assessment criteria. * **Responding**: Recognize that criteria are contextual. * **Responding**: Practice responding by looking at student samples through a variety of lenses. | Materials   * BLM PR3.1 The Clapping Game * BLM PR3.2 Generalization Strategies & Justification Framework * Copies of Generic Rubric for Math Processes * BLM PR3.3 Recording Sheet * chart paper and markers * powerpoint * Student Samples (4) |
|  | **Whole Class 🡪 The Clapping Game**  Choose 3 volunteers to act as the clappers and 3 volunteers to act as the assessors. Use the instructions on BLM PR3.1 The Clapping Game to complete the activity. Time for debriefing is included in the instructions on the BLM handout. | The purpose of this activity is to highlight the importance of sharing the criteria for assessment *prior to* the assessment. |
| Minds On… |
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|  | Groups of 4 🡪 Expert Groups  Explain that participants will be viewing student work and practicing “responding to students over time”. Expert Groups of 4 will be formed and each group will look at student work through a different lens related to the Achievement Chart and the Mathematical Processes (see note at side). Each group will also look at the work through the lenses of “Justification” and “Generalization Strategies” from the work of Cathy Bruce and Ruth Beatty. Number off participants (1,2,3) to create Expert Groups. Subdivide Expert Groups into smaller groups of about 4 if necessary (there may be more than 1 Expert Group for each lens.) Provide copies of BLM PR3.2 to every participant as well a copy of the appropriate section of the generic Math Processes rubric to each group. Provide each participant with a copy of BLM PR3.3 for recording their feedback. Allow approximately 20 minutes for each group to examine their criteria and record “Important Things to Consider” on BLM PR3.3. (Total time to complete this part including forming groups/providing instructions will be approximately 30 minutes).  Allow participants to switch with another person if they prefer a different lens.  **Individual** 🡪 **Writing Feedback**  Each Expert Group will receive **ONE** (the same) set of 4 student samples that have been numbered for identification as Sample 1, Sample 2, Sample 3 and Sample 4.   * Participants will individually look at one piece of work at a time and record their feedback on BLM PR3.3, based on their group’s lens * Pass samples one to the right until everyone has examined all 4 samples.   **Groups of 4** 🡪 **Round Robin I am unsure of how this will go – I think of round robin play in sports and it isn’t working for me here – are they just to share their thoughts about the feedback – is the name round robin correct here?**   * Provide each group with 4 half sheets of chart paper. Participants will use a Round Robin to debrief and decide on their ‘consensus feedback’ for each sample. Record 1 or 2 key pieces of consensus feedback on the half sheet of chart paper for each sample. Post the half sheets beside the student samples.   **Groups of 3** 🡪 **Gallery Walk**  Re-form new groups of 3 (Jigsaw), by taking one person from each Expert Group to be in the new group. Jigsaw groups will complete a gallery walk. As they look at each sample, jigsaw members will share their insights based on their Expert Group lens. | Lens 1: Communication (Representing, Communicating)  Lens 2: Application and Knowledge (Selecting Tools and Strategies, Connecting)  Lens 3: Thinking (Reasoning and Proving, Problem Solving, Reflecting)  Note: The generic Mathematical Processes Rubric can be found on EduGAINS at:  <http://www.edugains.ca/resources/LearningMaterials/MathProcesses/GenericProcessesRubric.doc>  Note: Samples being used at Math CAMPPP are: Cube Sticker Problem or Keepin’Tabs.  Note to facilitator re:posting:  Post a copy of each of the 4 student samples around the room- spread out. Participants will then post their feedback on half sheets of chart paper beside those samples. Leave lots of space as there will be several half pieces of chart paper posted for each sample. |
| Action! |
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|  | Whole Group🡪Discussion   * Did focussing on a particular lens help you provide feedback? Why/why not? * Did you notice any overlaps in the feedback provided through different lenses? * Will you look at providing feedback any differently now? Why/why not? * What questions/concerns do you still have? What are your next steps? | are we going to record any of the ideas here? |
| Consolidate Debrief |
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| Reflection | Home Activity or Further Classroom Consolidation  Individual 🡪 Perspective Passport / Math Map  Provide time for participants to individually reflect on their learning/ possible next steps and record in their Perspective Passport or on their Math Map. Allow about 5 minutes. |  |